



## PATENT ABSTRACTS OF JAPAN

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**F02F 1/24**(21)Application number: **01013794**(22)Date of filing: **23.01.89**(71)Applicant: **TOYOTA MOTOR CORP**(72)Inventor: **KAWASAKI MINORU**  
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## (54)CYLINDER HEAD

## (57)Abstract:

**PURPOSE:** To enhance the extent of deposition efficiency to a cylinder head in a clad seat layer by forming a plastic deformation layer in a base metal surface layer at the underside of the clad seat layer formed in a part equivalent to a valve seat of the cylinder head.

**CONSTITUTION:** A port part 2 is formed in a cylinder head body 1, and this port part 2 is opened to a recess 3 at the side of a combustion chamber. Likewise, a valve seat surface 5, with which a valve 4 comes into contact, is formed in an opening end of the port part 2. In addition, the valve seat surface 5 is partitioned off by a clad seat layer 6 padded by laser cladding. In the above constitution, a plastic deformation layer 7 plastically deformed by a mill roller or the like is formed in a base metal surface layer at the underside (side of the cylinder head 1) of the clad seat layer 6. With this

constitution, a defect 8 such as a pinhole or the like so far existing in the cylinder head body 1 (base metal part) is brought to nothing in substance at a part of the plastic deformation layer 7.

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